DOCUMENT RESUME

ED 155 683 CS 004 209

TITLE	Reading, Comprehension, and Memory Processes: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," March through June 1977 (Vol, 37 Nos. 9 through 12).
INSTITUTION	ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.
PUB DATE	78
NOTE	16p.; Some parts of document may be marginally legible
EDRS PRICE	MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS	Adults; Advance Organizers; Annotated Bibliographies; Art Expression; *Comprehension; Context Clues; Critical Reading; *Doctoral Theses; Elementary Secondary Education; Error Patterns; Higher Education; Language Patterns; *Learning Processes; Memory; Questioning Techniques; Reading Ability; *Reading Comprehension; Reading Processes; *Reading Research; *Recall (Psychological); Sex Differences

ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 21 titles deal with a variety of topics, including the following: effects of methods of study, cognitive style, pre-information on the construction of written material, gender of generic pronouns, and study questions interspersed in instructional text material on memory, recall, and retention; effects of metaphor, adjunct aids, passage complexity, word frequency, and syntactic, semantic, and contextual variations on reading comprehension; effects of question type and response mode on learning from prose; the effect of later-appearing syntactic structures on young children's oral reading errors; the ability of textbook cues to influence the reading process; children's use of context clues; the relative effects of reader ability and material difficulty on the size of the perceptual span in reading; the effects of orthographic anomalies on good readers' performance; relationships between art expression and reading strategies; factors influencing college students' learning processes; children's critical reading abilities; and the relationship of mode of story presentation to retention of detail in young children. (GW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED155683

BEST COPY AVAILABLE

Reading, Comprehension, and Memory Processes:

Abstracts of Doctoral Dissertations Published in Dissertation Abstracts International, March through June 1977 (Vol. 37 Nos. 9 through 12)

Compiled by the Staff of

ERIC/RCS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

University Microfilms International

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

CS004 207

The dissertation titles contained here are published with permission of the University Microfilms International, publishers of Dissertation Abstracts International (copyright © 1977 by University Microfilms International), and may not be reproduced without their prior permission.

This bibliography has been compiled as part of a continuing series designed to make information on relevant dissertations available to users of the ERIC system. Monthly issues of Dissertation Abstracts International are reviewed in order to compile abstracts of dissertations on related topics, which thus become accessible in searches of the ERIC data base. Ordering information for the dissertations themselves is included at the end of the bibliography.

Abstracts of the following dissertations are included in this collection:

Annis, Linda Ferrill

MEMORY FOR A TEXTUAL PASSAGE: EFFECT OF PREFERRED OR NONPREFERRED METHOD OF STUDY, VARIOUS STUDENT INSTRUMENTAL ACTIVITIES, AND COGNITIVE STYLE ON RECALL AND RECOGNITION

Arter, Judith Land

THE EFFECTS OF METAPHOR ON READING COMPREHENSION

Bennett, Wilma Eileen

THE EFFECTS OF A STRUCTURE CONVEYING INTRO[illegible]TION TO WRITTEN MATERI[illegible]N THE LEARNING EFFIC[illegible]Y OF ADULT LEARNERS

Bing, Sarah Blanchard

EFFECTS OF QUESTION TYPE AND RESPONSE MODE ON ROTE AND CONCEPTUAL LEARNINC FROM PROSE

Buchanan, Lillian

THE GENDER OF GENERIC PRONOUNS AND ITS EFFECTS ON IDENTIFICATION AND MEMORY

Christie, James Frederick

THE EFFECT OF LATER APPEARING SYNTACTIC STRUCTURES ON SEVEN AND EIGHT-YEAR-OLD CHILDREN'S ORAL READING ERRORS

Davidson, James Palmer

AN INVESTIGATION OF THE EFFECTS OF TEXTUAL AND STUDENT GENERATED CUES UPON MATHEMAGENIC READING BEHAVIOR

Gulkus, Steven Paul

EFFECTS OF INTERSPERSING STUDY QUESTIONS IN INSTRUCTIONAL TEXT MATERIALS ON IMMEDIATE RECALL AND DELAYED RETENTION

Jackson, James Edward

A STUDY OF THE DIFFERENTIAL EFFECTS OF CONCURRENT COGNITIVE ORGANIZERS, PICTURES AND UNDERLINED WORDS ON LITERAL AND INFERENTIAL COMPREHENSION IN SIXTH, SEVENTH, AND EIGHTH GRADE STUDENTS

Kastelic, Ted Gay

EFFECTS OF ADJUNCT AIDS AND PASSAGE COMPLEXITY ON READING BEHAVIOR AND COMPREHENSION

Owens, Anthony Mathew

THE EFFECTS OF QUESTION GENERATION, QUESTION ANSWERING, AND READING ON PROSE LEARNING

Pastor, Sybia Claire

USE OF FIVE KINDS OF CONTEXT CLUES BY CHILDREN IN GRADES TWO, FOUR, SI[illegible], AND EIGHT

Patberg, Judythe Ann Pearson

THE RELATIVE EFFECTS OF READER ABILITY AND MATERIAL DIFFICULTY ON THE SIZE OF THE PERCEPTUAL SPAN IN READING

Standal, Timothy Clyde

THE EFFECTS OF SYNTACTIC, SEMANTIC, AND CONTEXTUAL VARIATIONS ON CHILDREN'S COMPREHENSION AND RECALL OF CAUSAL RELATIONS

Strange, Michael Caley

THE EFFECTS OF ORTHOGRAPHIC ANOMALIES UPON GOOD READERS' PERFORMANCE

Strong, Betty Jay VanSandt

EXPRESSIVE STYLES IN ART AND STRATEGIES IN READING

Sunshine, Phyllis Mae

PREORGANIZATION OF READING MATERIALS FOR GOOD AND POOR READERS IN GRADES 1, 3, AND 5

Tanner, Linda Rose

THE EFFECTS OF VARIATION IN WORD FAMILIARITY, STORY CONTENT, AND INSTRUCTIONAL EFFORT ON BOYS' AND GIRLS' COMPREHENSION OF LITERAL AND INFERENTIAL QUESTIONS

Thompson, Dennis Reid

THE INFLUENCE OF READING ABILITY AND SPECIFICITY OF OBJECTIVES ON INTENTIONAL AND INCIDENTAL LEARNING FROM ESSAYS IN COLLEGE ENGLISH

Uyidi, Guillaume T.

FIELD ARTICULATION AND CRITICAL READING AND LISTENING

Witzman, Audrey Lorraine

THE RETENTION OF DETAIL BY YOUNG CHILDREN WITH THREE MODES OF STORY PRESENTATION

MEMORY FOR A TEXTUAL PASSAGE: EFFECT OF PREFERRED OR NONPREFERRED METHOD OF STUDY, VARIOUS STUDENT INSTRUMENTAL ACTIVITIES, AND COGNITIVE STYLE ON RECALL AND RECOGNITION

ANNIS, Linda Ferrill, Ph.D.
Purdue University, 1976

Major Professor: J. Kent Davis

The purpose of this study was to investigate the most effective techniques for study by manipulating the most commonly used study techniques of reading, underlining, and note taking with preferred or nonpreferred assigned methods of study and review or nonreview conditions. It also attempted to assess the extent and manner in which global or analytic cognitive style influences the effectiveness of these variables.

Subjects were students at a midwestern university. The subjects were asked to read a 1525-word article using either their preferred or nonpreferred assigned study technique. One week later an examination over the article consisting of multiple-choice and essay questions was given. Half of the subjects were given 10 minutes to review before the examination. The other half of the subjects were given no review time. Performance on the multiple-choice recognition questions, essay recall questions, and total score on both kinds of questions, as well as the time used to complete the reading assignment were the dependent variables. Additionally, scores on the Hidden Figures Test were obtained so that the data could be analyzed for possible interactions of cognitive style with the other variables.

Two analyses of the data were performed. A 3 X 2 X 2 multivariate analysis of variance (Study Technique X Preference X Review) was performed for the dependent variables of multiple-choice, essay, and total scores as well as for time. The results indicated that there were significant effects of study techniques for time with note taking requiring more time than underlining which required more time than reading. The results indicated that there was a significant effect for the nonpreferred study technique over the preferred one for essay and total scores as well as for time. The results of this analysis also indicated a significant effect of review over nonreview for both multiple-choice and total scores.

The second analysis was a 3 X 2 X 2 X 2 multivariate analysis of covariance (Study Technique X Preference X Review X Cognitive Style) using subjects' Scholastic Aptitude Test-Verbal scores as a control for intelligence. It was performed on the same four dependent variables. The results of this analysis found a significant effect of study techniques for essay and total scores as well as for time. However in contrast to the previous analysis the results indicated that there was a significant effect of nonpreference over preference only for the essay score. As in the previous analysis there was a significant effect of review over nonreview for both multiple-choice and total scores.

The results of this analysis also indicated that there was a significant interaction of preference, review, and cognitive style for multiple-choice and total scores. The increase in the number of significant effects for study techniques, and the triple interaction resulting from the addition of the cognitive style variable and the SAT-V covariate to this analysis suggest the possible presence of interactions between cognitive style, preference, and study techniques that are worthy of further investigation.

The results of this study are discussed in relation to previous findings. Possible explanations for both expected and unexpected results are presented. Several suggestions for future research are given. Order No. 77-7410, 125 pages.

THE EFFECTS OF METAPHOR ON READING COMPREHENSION

ARTER, Judith Land, Ph.D.
University of Illinois at Urbana-Champaign, 1976

One hundred forty-three sixth graders were given one of two versions of an instructional passage on the Sasquatch. The two versions were identical except that one contained ten metaphors while the other contained ten literal "translations" of the metaphors. The metaphors were developed by adult consensus of a "good" metaphor; the literal translations were generated through adult consensus of the single best literal intent of each metaphor. The purpose of the study was to ascertain whether a passage containing metaphors differentially facilitated the comprehension and retention of the material in that passage and whether subjects would rate such a metaphor passage as more interesting.

The basic research design was a 2 (Passage Type) x 3 (Verbal Ability) ANOVA with multiple choice test items, free recall measures or interest ratings as the dependent variables. Verbal ability was assessed by a portion of the Stanford Achievement Test vocabulary subtest. The multiple choice test consisted of three types of items. Fact questions (knowledge level questions) and Inference questions could only be answered by a metaphor or its literal translation. Incidental Fact questions were knowledge level questions based on material which appeared in exactly the same form in each passage. Free recall was scored by number of idea units correctly recalled. Idea units were segments of the passages demarcated by processing pauses derived by intuitive consensus of adults.

Results showed that there were no differences in interest ratings between the two groups. However, there was a general facilitative effect for the low verbal ability subjects on the multiple choice test: low verbal ability subjects receiving the metaphor passage did better on the Incidental Fact questions than those receiving the literal passage. It was also shown that passages with metaphors are, on the average, rated more important than passages without metaphors and that rated importance of idea units was highly related to their frequency of recall.

Analysis of the results suggests a number of factors that should be considered in designing future research. These are (1) the choice of experimental topic: this should be novel to the subjects, yet similar enough to topics with which the subjects are familiar that vehicles for use in metaphors are readily available. (2) The choice of vehicles: these must be appropriate to the experimental population. A large number of such vehicles might be obtained by a large scale norming study in which subjects representative of the experimental population are questioned concerning their knowledge of various concepts, objects, etc. (3) The generation of "good" metaphors: the procedure used here of rating consensus by proficient users of the language appears to be quite satisfactory. It also appears to be successful in generating matched literal passages. (4) Because of the problems inherent in designing "fair" multiple choice questions, only recall measures of learning are recommended for future research using this design. (5) Frequency of free recall was low (~10%) in this study. This may have been due to non-comprehension of the task, a disinclination to perform or difficulties in the ability to write down what was, in fact, recalled. A better procedure for young subjects, especially if recognition measures are dropped, is the collection of oral free recall protocols. (6) At least in initial research adult subjects should probably be used instead of children. This would make it easier to find appropriate vehicles as well as ensure greater understanding of the tasks involved and more on-task behavior.

Order No. 77-8922, 214 pages.

THE EFFECTS OF A STRUCTURE CONVEYING INTRODUCTION TO WRITTEN MATERIALS ON THE LEARNING EFFICIENCY OF ADULT LEARNERS

BENNETT, Wilma Eileen, Ph.D.
Michigan State University, 1976

Community college students spend a large portion of their study time interacting with written materials. It was hypothesized that if they were given pre-reading information on how a written selection was constructed, they would not need to figure out this information as they read and would therefore have more time to devote to subject matter content itself. The suggested pre-information included four things: the author's purpose for writing the selection, the main point or main topic of the selection, the order in which subtopics were arranged (e.g., hierarchical, chronological, unidentifiable), and the types of details to expect.

The hypothesis was tested by determining whether community college students could recall more details from what they read if they received a preface containing the suggested information. Three treatment groups read articles for specified lengths of time and then answered fill-in-the-blank type quizzes. One treatment group received construction prefaces containing the suggested information on article construction. A second group received placebo prefaces and a final group received no pre-reading information at all.

Results of the study supported the main hypothesis: subjects who received pre-information on article construction recalled significantly more details from what they read than other subjects. One auxiliary finding indicated that receiving construction prefaces did not make the articles seem any easier than they seemed to other subjects. Another finding suggested that a placebo preface was as effective as a construction preface and significantly more effective than no preface in enabling subjects to determine the purpose of what they were reading.

Order No. 77-5772, 114 pages.

EFFECTS OF QUESTION TYPE AND RESPONSE MODE ON ROTE AND CONCEPTUAL LEARNING FROM PROSE

BING, Sarah Blanchard, Ph.D.
University of Georgia, 1976

Major Professor: Murray H. Tillman

Recent research has investigated the effects of rote and conceptual learning outcomes in written prose materials. Although few in number most of the studies have indicated that practice on conceptual adjunct questions facilitates later performance on conceptual learning measures. Some studies, however, have stressed that there are exceptions. Even fewer studies have systematically investigated the effects of adjunct question response mode on constructed (essay) and selective (multiple choice) learning measures. The outcomes of these studies have been inconsistent.

The major purpose of the present study was to investigate 1) the effects of rote and conceptual adjunct questions on three criterion measures; 2) the effects of short answer and multiple choice response modes on three criterion measures; 3) interactions between type of question and response mode on three criterion measures; and 4) the effects of the above treatments compared to a no question control group on three criterion measures.

A total of 95 students enrolled in undergraduate educational psychology courses were randomly assigned to one of five treatment groups. All students read the same passage on Bloom's "View of Instruction" and then took a conceptual essay exam followed by rote and conceptual multiple choice exams counterbalanced within groups. A questionnaire was administered last. The five experimental groups differed only in the type and response mode of adjunct questions inserted within their passage. The control group read the passage without adjunct questions.

Data was analyzed using one and two way ANOVA's. Results were nonsignificant. Only three of the hypotheses were supported. As expected, there were no significant differences between treatments and no significant interactions on the multiple choice criterion tests.

Contrary to expectations, there were no significant main effects or interactions on the conceptual essay exam. Data from the questionnaire tended to confirm the lack of effectiveness of the adjunct questions. Possible explanations were offered for the lack of significance and suggestions for future research were presented.

Order No. 77-12,368, 144 pages.

THE GENDER OF GENERIC PRONOUNS AND ITS EFFECTS ON IDENTIFICATION AND MEMORY

BUCHANAN, Lillian, Ph.D.
Kent State University, 1976

Directors: Sonya L. Blixt, Lawrence Litwack

This research was an attempt to determine what gender is attributed to the referents of masculine generic pronouns and what effect the use of masculine generic pronouns has on identification and memory for readers of both sexes.

The research included two separate experiments. In the first, the female and male undergraduates at Kent State University (1974–75 academic year), who acted as subjects, read a passage by Jean Piaget, describing the thinking patterns of children. The sex and specificity of the child used to illustrate the passage were varied. The illustrative figures in the passage were either generic--abstract collective figures--or specifically named individuals. Both the generic and specific figures were replaced by either masculine feminine or plural pronouns with minor additional changes where appropriate. The child or children in the six resulting forms of the paragraph were rated on twelve bipolar adjective scales which had been shown in previous research to differentiate between male and female referents.

The results of the first experiment indicate that subjects attribute sex to illustrative figures according to the gender of the pronouns used. When masculine pronouns replaced a neutral generic antecedent--"child"--the antecedent was given a rating significantly more masculine than neutral. The plural conditions were given the most neutral rating.

Additionally, the results of the first experiment suggest that females are evaluated as more deviant from neutral than are males and that females are not as highly valued as males. The relative placement of centroids based on the 12 rating scales showed that the masculine figures were given ratings more similar to the plural figures than were the feminine figures. Further, the masculine and plural figures received more socially desirable ratings than those given the feminine figures.

In the second experiment, female and male freshmen at Kent State University (1975–76 academic year) read a story about a student, wrote as much of the story as they could recall after a five-minute delay, and then rated the degree of identification they had felt with the character in the story. The age and sex of the character was varied to be either high school or college-age and either female, male, or neutral. The neutral condition involved a "typical student" referenced with masculine generic pronouns.

The results of the second experiment provided no direct

evidence that the sex of a character influences either identification with the character or recall of the story involving the character. The character age variable appeared to influence both identification and recall. The college student characters were of the same age as the subjects and produced identification ratings and recall scores significantly higher than those of the high school student characters. The observed lack of relationship between the sex of the character and identification and recall in this experiment may have been due to either imprecise measurement of the dependent variables or a weak manipulation of the character-sex variable. The male subjects did show a nonsignificant tendency to recall more of the male and neutral stories than of the female stories. Further, all subjects recalled significantly more of the neutral character than of the female character stories, suggesting that female character stories were not given as much attention as neutral character stories. Order No. 77-7813, 206 pages.

THE EFFECT OF LATER APPEARING SYNTACTIC STRUCTURES ON SEVEN AND EIGHT-YEAR-OLD CHILDREN'S ORAL READING ERRORS

CHRISTIE, James Frederick, Ph.D.
Claremont Graduate School, 1977

Recent studies of children's oral and written language have revealed the existence of a number of later appearing syntactic structures. These structures are rarely used by primary-grade children, and there is evidence that many children in this age group cannot comprehend or produce some of these structures.

The purpose of this study was to determine the effect of these later appearing syntactic structures on the quantity and quality of oral reading errors (miscues) made by seven and eight-year-old children, who do not use these structures frequently in their oral language. It was hypothesized that later appearing structures would cause subjects to make a larger number of miscues and a higher percentage of detrimental miscues.

Twenty subjects, ages seven and eight, were given an oral language screen in order to determine if they used certain later appearing syntactic structures frequently. A taped, 45-minute sample of each subject's oral language was obtained by means of a wireless microphone. A 300-word sample of each tape was then transcribed and screened.

Two subjects were found to use examples of later appearing structures and were dropped from the study. Two replacement subjects were then selected and given the oral language screen.

The subjects read two passages orally. These passages were equated in terms of number of words, average sentence length, vocabulary, readability level, characters, setting, and action. The only major difference between the two passages was that Passage A was composed of frequently used syntactic structures whereas Passage B was composed of later appearing structures.

Since each subject read both passages, several measures were taken to minimize sequence effects: (a) the order of presentation was counterbalanced and (b) there was a two-week period between readings.

The oral reading sessions were tape-recorded. These tapes were later replayed, and each subject's miscues were quantitatively and qualitatively analyzed.

The results were that subjects made significantly more miscues and a higher percentage of detrimental miscues on Passage B, the passage composed of later appearing syntactic structures. Thus both the hypotheses of this study were confirmed.

It was concluded that later appearing syntactic structures do impair the reading performance of children who do not use these structures frequently in their own speech. This conclusion supports Kenneth Goodman's contention that reading is a process of sampling, prediction, and confirmation rather than a sequential identification of individual words. The results of this study also indicate that readability formulas, which use average sentence length as the only measure of syntactic complexity, may be invalid. Order No. 77-9323, 121 pages.

AN INVESTIGATION OF THE EFFECTS OF TEXTUAL AND STUDENT GENERATED CUES UPON MATHEMAGENIC READING BEHAVIOR

DAVIDSON, James Palmer, Jr., Ed.D.
Wayne State University, 1976

Major Professor: Dr. Guy T. Doyal

This study investigated the ability of text book cues to influence the reading process. Rothkopf's concept of mathemagenic behavior, together with information-processing theory provided a theoretical basis for the work. It was hypothesized that the cues would demonstrate some power to modify reader's information processing strategies and in so doing, influence the amount learned in reading prose material. Three cues were used singly and then combined into a fourth cue. The cues were textbook headings, marginal words or phrases, and underlining. It was also determined that the conditions under which one reads might alter the comprehension outcomes. Three conditions were created. One was to just read the material. The second was to attend to a specific cue, while the third was to have the reader write his own cue.

This resulted in a factorial design of four cues and three conditions. A control group who only read the stimulus material with no cues present was added. The sample consisted of 195 educational psychology students which represented a sample of 15 persons per cell. Students were randomly assigned to the cells. The material was excerpted from a current educational psychology test. Three articles totaling 1879 words were used. Students read the material, recorded the time used and took the test.

Test development occurred in several stages. It began with a content analysis of the articles and went through trial and an item analysis of the results. Rewriting and addition preceded another trial. A further item analysis resulted in a thirty-item test which discriminated well between high and low scoring students and had a K-R #20 reliability correlation coefficient of r. = 85.

The data were analyzed using an ANOVA procedure. Neither the cues nor the conditions were significant. An interaction between the cues and the conditions was significant. One group was significantly different from all the other groups when comparisons were carried out by an a posteriori contrast, on comprehension. The significantly different group had created all three of the cues themselves. Although this significantly increased comprehension, it also required a greatly increased amount of time. The probable acceptance of this finding by future students was doubted. Analysis of covariance revealed that time itself was the more important determiner in increasing comprehension. The mean time difference required for the three conditions were contrasted by a posteriori method. The results were in line with the effort expended. Reading only required the least amount of time, while requiring students to create their own cues took the most.

Further research along the line of textual cues was not recommended. Research which would investigate the determinants of goal setting through direct sampling of a task was recommended. Order No. 77-9386, 86 pages.

EFFECTS OF INTERSPERSING STUDY QUESTIONS IN INSTRUCTIONAL TEXT MATERIALS ON IMMEDIATE RECALL AND DELAYED RETENTION

GULKUS, Steven Paul, Ph.D.
West Virginia University, 1976

The purpose of the present investigation was to determine to what degree immediate recall and delayed retention of knowledge and application level study questions are affected by interspersing study questions after or before-after related test segments of various lengths. Furthermore, knowledge of results of study questions was explored. The relationship between these conditions was represented in a 2 x 2 x 2 factorial design with the addition of a reading control group.

The subjects were 90 college graduate students who were exposed to experimental or control conditions. There were three experimental treatments. Treatment 1, the frequency of study question placement was varied such that subjects either responded to two study questions (knowledge and application level questions) interspersed throughout the text at an average of 12 sentences or responded to eighteen study questions accompanying the entire text, as a block. Treatment 2, location of study question was manipulated by placing study questions either after or before-after related text information. Treatment 3, knowledge of results contained either feedback or no feedback conditions.

Subjects' performance was measured on immediate recall and delayed retention tests, both tests including knowledge and application items. Also time to completion was measured. Stimulation materials consisted of a 120 sentence text passage with 9 knowledge and 9 application study questions. These questions accompanied the experimental package.

It was found that subjects receiving study questions performed better than those subjects who were simply asked to read the required text, without the aid of study questions. Also, subjects receiving study questions interspersed throughout the text had more delayed retention knowledge level items correct than those subjects who received study questions with the entire text (as a block). Subjects receiving study questions after related text segments, in general performed better than those subjects receiving study questions before-after related text segments. Feedback was only significant for delayed retention knowledge level items (feedback facilitated performance). Time to completion of the experimental package indicated less time to completion for the interspersed--before-after condition. A significant interaction showed that the interspersed--after condition was superior to all other combined conditions.

From the foregoing results, it was suggested that active responding accounted for differences between experimental and control groups. In addition, the before-after condition interfered with related responses. Subjects received knowledge of results through exposure of text passages, thus cancelling out differences between feedback and no feedback. Suggestions were made concerning the use of study questions with text materials. Order No. 77-12,311, 119 pages.

A STUDY OF THE DIFFERENTIAL EFFECTS OF CONCURRENT COGNITIVE ORGANIZERS, PICTURES AND UNDERLINED WORDS ON LITERAL AND INFERENTIAL COMPREHENSION IN SIXTH, SEVENTH, AND EIGHTH GRADE STUDENTS

JACKSON, James Edward, Ph.D.
The University of Wisconsin–Madison, 1976

Supervisor: Associate Professor Kenneth L. Dulin

The purpose of this investigation was to examine the effect of selected adjunct aids -- concurrent cognitive organizers, pictures, and underlined words -- on literal and inferential comprehension of sixth, seventh, and eighth grade students when reading a narrative passage.

The content of the story "Sir Gawain and the Green Knight" was used to construct a forty-item test to be used as the field test. After an item-analysis, twenty of the forty items from the field test were used to construct the final comprehension tests. The same twenty items were also used in the development of four treatments, which were administered to two hundred and forty sixth, seventh, and eighth grade students randomly selected from one elementary school and one junior high school in a large Northeastern urban setting. Treatment one pertained to concurrent cognitive organizers. Treatment two pertained to pictures. Treatment three pertained to underlined words. Treatment four was the control group, who simply read the story and took the test.

A multivariant analysis of variance with two dependent measures was used to examine the differences in mean scores between boys and girls, and between grade levels. The results of the analysis for differences in mean scores revealed that there were no significant differences in mean scores between treatments, between boys and girls, or between grade levels.

Thus, the conclusions drawn from this study are that the use of adjunct aids such as concurrent cognitive organizers, pictures, and underlined words to increase students' comprehension of narrative passages is not justified. Educators, especially teachers and publishers, should examine closely the use of adjunct aids before designing material that uses these aids with the intent of increasing student comprehension in the middle grades. Order No. 76-28,151, 133 pages.

EFFECTS OF ADJUNCT AIDS AND PASSAGE COMPLEXITY ON READING BEHAVIOR AND COMPREHENSION

KASTELIC, Ted Gay, Ph.D.
The Pennsylvania State University, 1976

This study investigated the effectiveness of adjunct questions of various levels (specific and conceptual) in facilitating the learning of meaningful prose passages that were either abstract or concrete. In addition, the experiment was designed to measure the time taken by the subject to read each sentence. Results indicated that, contrary to expectations, the group reading the concrete passage showed inferior recall with conceptual prequestions, while the group reading the abstract passage benefited. These results were discussed as reflecting different processing strategies as a result of the prequestions.

Subjects also re-read with prequestions either the same passage or the other passage to test the transfer effects of prequestions. Results indicated that simply re-reading the passage may be a more efficient learning strategy than using adjunct aids. Order No. 77-9688, 126 pages.

THE EFFECTS OF QUESTION GENERATION, QUESTION ANSWERING, AND READING ON PROSE LEARNING

OWENS, Anthony Mathew, Ph.D.
University of Oregon, 1976

Adviser: A. J. H. Gaite

The purpose of this study was to examine the effect of question generation, question answering, and rereading a text passage on an immediate posttest and a delayed test of passage knowledge.

It was hypothesized that: 1) Question generation would require more time engaged on-task than the other treatments due to the demands of the task; 2) immediate posttest scores would be higher for the question generation group than the other treatments and question answering would produce higher scores than rereading the passage for meaning. When scores were adjusted with time as the covariate, group differences would lessen; 3) the followup test scores would be higher for the question generation condition than the other treatments and question answering would be superior to rereading the passage. It was predicted that the intergroup score differences would be somewhat less for the followup test than the posttest since the prose passage related directly to course content and all groups would have been studying for the examination in which the followup test had been embedded. When effective treatment time was covaried there would be no intergroup difference since the question generating group would use more time and all groups would be anticipating the followup test; and 4) followup test scores would be higher than posttest scores for all treatment groups.

Method

Subjects: Eighty-seven subjects in three groups of twenty-nine took part in the study. They were all students in a course of introductory educational psychology at the University of Oregon.

Condition: The experimental conditions were of three types:

Condition G: Subjects were instructed to generate easy multiple choice questions that would test knowledge of each of the six content areas of the passage.

Condition A: Subjects were instructed to respond to multiple-choice questions on the six content areas of the passage before checking and correcting their answers with the help of passage.

Condition R: Subjects were instructed to reread the passage until they understood the six main points of the passage.

Procedure: The subjects were tested in two sessions. They were given six minutes to read a 1200 word passage which they kept after they were given directions assigning them to one of the three treatments. They responded to their treatment instructions during the following twenty minutes and indicated the time which had elapsed while they were engaged with their tasks. After passages and task materials had been removed, the subjects responded to an 18 multiple-choice questions posttest on the passage. All subjects completed the same 18 questions on a followup test seven days later.

Results

The data were analyzed by: one-way analyses of variance with repeated measures where the repeated measures dimension was scores on the six content areas of the passage and the grouping factors were the treatment condition; one-way analyses of variance where dependent measures were test scores and independent measures were time and conditions; analyses of covariance where dependent measures were test scores, independent measures were conditions and the covariate was time. Scheffé's test was used for post hoc comparisons. The analyses found: 1. The question generating group spent significantly more time on task than the other two treatment groups. 2. There was no difference between the three treatment conditions' posttest scores either with or without time covaried. 3. There were no differences in followup test scores between treatment groups with or without time covaried. 4. The three treatment groups improved their scores from posttest to followup test.

Analysis of task materials showed that the question generation condition did not work equally in all six content areas of the passage, but generated most questions on the first two areas. Analyses of variance with repeated measures demonstrated performances on the posttest that reflected the inequalities of attention. These effects did not appear on the followup test.

Conclusions

Within the limitations of the study it was concluded that: 1. Subjects persevere longer in generating tasks, a characteristic which might prove advantageous in a non-laboratory learning situation. 2. On the basis of the results, we were unable to reject the null hypothesis that the subjects generating questions would do no better on the posttest than other subjects. 3. Equal followup test results between groups does not allow the rejection of the null hypothesis that the subjects generating questions would do no better on the followup test than other subjects. 4. Having taken part in a structured learning situation and having previously seen test items improves subsequent performance on the test items.

Order No. 77-4750, 99 pages.

USE OF FIVE KINDS OF CONTEXT CLUES BY CHILDREN IN GRADES TWO, FOUR, SIX, AND EIGHT

PASTOR, Sybia Claire, Ed.D.
Temple University, 1977

The purposes of this study were to investigate the quantitative and qualitative aspects of children's reading behaviors as they attempted to define unfamiliar nouns through the use of five different kinds of context clues and to identify the relative difficulty of the clue types. The clue types were synonym, antonym, series, tone or description, and definition.

The subjects were 120 children, 30 each from grades two, four, six, and eight, who were enrolled in a Catholic parochial school in the outer limits of Philadelphia. Children were of average intelligence and normal school progress according to school records and had reading skills within expected limits according to the appropriate oral selections of the Temple University Informal Reading Inventory. Children were tested individually with one of four levels of The Context Test, a test designed for experimental purposes.

Each level of the context test contained 50 items, 10 of each of the five kinds of clues. The same target word was embedded in context of ascending difficulty for pupils in ascending grades. Test construction controlled for an increasing mean number of syllables per sentence and words per sentence, as well as the percentage of words not in the Dale List of 3000 Words. Words for the second grade test were selected from the children's basal readers.

Quantitative data were analyzed by a two-way analysis of variance with repeated measures on the second factor. Scheffé mean comparisons and the extended Scheffé mean comparisons were used as post hoc measures. Protocols were analyzed for strategies children had used. The strategies were organized

into a classification scheme and were illustrated.

Although for all children in the study, tone and description and series clues proved easier than did synonym, antonym and definition, post hoc analysis of data from the individual grades indicated that only at sixth grade level was tone or description easier than was antonym. No other differences were significant. Second grade children used all context clues significantly less well than did children in grades four, six, and eight who did not differ from each other. There were significant but irregular changes in the use of individual context clues among children of grades four, six, and eight.

Children used four kinds of information and organized their ideas in three basic ways. They used semantic, structural, personal, and grapho-phonemic information; they used syncretic strategies that used either some or all of the information and strategies that were not syncretic. Of the 33 strategies identified, 22 that were from all seven categories were used by at least 10% of the children in all grades tested. Eleven were used either by children in grades two, four, and six only, or by children in grades four, six and eight only. Children in eighth grade as well as children in second grade used syncretic thinking processes. The idea further indicated a heavy reliance on experience.

Order No. 77-13,521, 170 pages.

THE RELATIVE EFFECTS OF READER ABILITY AND MATERIAL DIFFICULTY ON THE SIZE OF THE PERCEPTUAL SPAN IN READING

PATBERG, Judythe Ann Pearson, Ph.D.
University of Minnesota, 1976

The purpose of this study was to examine the relative effects of reader ability and material difficulty on the size of the perceptual span in reading. The methodology employed for this examination was straightforward. The strategy was to compare the reading performance of readers given the opportunity to use a perceptual span larger than a word to that of readers deprived of this opportunity. To accomplish this, passages were presented in two modes: a "line mode" wherein the material was presented in a normal fashion, and a "one-word mode" wherein the text was presented with the words widely separated from one another. It was assumed that the line mode would not interfere with the opportunity to use a perceptual span larger than a word while the one-word mode would substantially interfere with that opportunity, if not eliminate it altogether.

To examine the possible effects of ability and difficulty on the perceptual span, material at two widely disparate levels of difficulty (4th–5th grade and 11th–12th grade) was presented, each level in each of the two modes, to good and poor eighth grade readers. Sixty-four eighth graders, selected from those receiving scores on the Gates-MacGinitie Reading Test in the top and bottom quartiles of their class, were the subjects for the experiment.

Three general predictions of the study were made: 1) that deprivation of the opportunity to use a perceptual unit larger than a word would have a generally significant negative effect on reading performance; 2) that such deprivation would have a greater effect on good readers than on poor readers; and 3) that such deprivation would have a greater effect on reading performance for easy material than it would for difficult material.

To test the difference between the experimental conditions, a three–way analysis of variance with repeated measures run on two factors for each of three dependent measures was used. The dependent measures that were analyzed were 1) the time in seconds it took a subject to read two passages for each of the two modes of presentation; and 2) the number of comprehension questions answered correctly for passages presented in each mode. In addition, a third dependent measure called reading efficiency was analyzed. This measure combined the time and comprehension scores to yield a score of the number of questions answered correctly per one minute of reading time.

The finding regarding the first general prediction was that while the one-word mode did produce an overall negative effect on time and reading efficiency, it had an overall positive effect on comprehension. Given the possibility of a trade-off between time and comprehension, the fact that the combined measure of reading efficiency showed a significant negative effect for the one-word mode offers reasonable support for the prediction.

The second general prediction was confirmed. The results of the ability x mode interaction lend clear support for the conclusion that deprivation of the opportunity to use a large perceptual unit while reading has little effect on poor readers but substantially impairs the reading efficiency of good readers.

There was no support for the third general prediction. The difficulty x mode interaction was not significant on the comprehension and reading efficiency measures suggesting that subjects did not change the size of their perceptual unit as a function of the difficulty of material.

The findings show that under some circumstances at least, the perceptual span in reading is larger than a word (but there is no indication of how much larger) and that it will vary at least with the skill of the reader, though the effect of difficulty of material is still unclear.

Order No. 77-12,901, 121 pages.

THE EFFECTS OF SYNTACTIC, SEMANTIC, AND CONTEXTUAL VARIATIONS ON CHILDREN'S COMPREHENSION AND RECALL OF CAUSAL RELATIONS

SANDAL, Timothy Clyde, Ph.D.
University of Minnesota, 1976

The purposes of the present study were to provide data about the theoretical concern of memory processing as it relates to reading and to provide data which might contribute to a better understanding of the factors affecting readability.

Sixty-four suburban fourth-grade subjects who had attained at least a 4.5 grade norm score on a comprehension subtest were randomly selected and assigned to one of four treatment conditions which differed in terms of the frequency of words used in the stimulus material (higher frequency versus lower frequency) as well as access to the stimulus materials while answering questions (access allowed versus access denied). Within each treatment condition, each subject read and answered questions about eight target structures expressing causal relations. The eight target structures differed in terms of syntactic form as well as the context in which they were presented. There were four levels of syntax (target structure sentence form): (1) single, complex sentence, cue word present; (2) two sentences, cue word present; (3) single, compound sentence, cue word absent; and (4) two sentences cue word absent. The cue words used to signal the cause-effect relationships were "because" and "so." There were two levels of isolation/context; the target structures in isolation and the target structures in their original paragraph context. A two between, two within repeated measures design was employed. The between subjects factors were word frequency and text access. The within subjects factors were syntax and isolation/context.

Comprehension was assessed by requiring students to respond to "why" questions generated by replacing the cause clause of each target structure with the word "why." Two dependent measures were used. The correctness measure assessed literal comprehension, which was defined as correct identification of the specific cause-effect relationship stated in the target structure deleted by the question transformation. The congruence measure assessed the degree to which the subjects response was influenced by the form of the stimulus materials. The data were analyzed by analysis of variance.

Summary of Findings

All findings reported as significant were significant at the .05 level of probability.

Word Frequency. The data analysis of the word frequency variable indicated that on the correctness measure there was no significant effect. However, on the congruence measure there was a significant effect favoring the higher frequency versions over lower frequency versions. Text Access. There were no significant effects due to the text access variable. Syntax. The planned orthogonal contrasts revealed that on both measures two sentence target structure constructions elicited significantly higher scores than single sentence target structure constructions. Isolation/context. The analysis on both dependent measures revealed that target structures in isolation elicited significantly higher scores than target structures in their original paragraph context.

Conclusions

The essence of constructive memory process theories is that content, not the form of a message, is stored; new information is stored with similar, previously-existing information; and because new information is stored with old information a subject attempting to recall some new information is likely to also recall some old information and, so, appear to get more out of a message than is actually there. The findings of the present study, in general, support constructive memory process theories.

With regard to the question of the factors affecting readability, two results are of particular interest. First, the word frequency variable did not produce the effect predicted by previous research and implied by some readability formulas. That is, the use of lower frequency words did not affect comprehension. Second, the analysis of the orthogonal contrasts indicated that target structures presented in single complex or compound sentences elicited significantly lower scores on both measures than target structures presented in two single sentences. This finding is in direct agreement with readability formulas that imply that shorter unembedded sentences enhance readability.

Order No. 77-12,859, 118 pages.

THE EFFECTS OF ORTHOGRAPHIC ANOMALIES UPON GOOD READERS' PERFORMANCE

STRANGE, Michael Caley, Ph.D.
University of Minnesota, 1976

The purpose of this study was to determine the effect of orthographic anomalies upon the reading performance of good transitional readers. An orthographic anomaly is defined as the substitution in a word of one letter by another letter that represented only a minimal change. Orthographic anomalies were defined as either major anomalies or minor anomalies. A major anomaly involved a letter substitution that changed the configuration of the word. A minor anomaly involved a letter substitution that did not change the configuration of the word.

Subjects for the study were selected from a pool of fifth and sixth grade students identified by their teachers as being good readers. An equal number of students was selected from each grade level. Materials for the study were created by inserting one type of anomaly in a segment of a word in every tenth word of the final 250 words of a 350-word passage. This resulted in six types of anomalized passages. A seventh 350-word passage was also constructed in which none of the words were anomalized. Subjects were asked to read silently each of seven passages. The number of seconds required to read each passage was collected to determine the effects of anomalies on reading performance.

Results of the analysis of variance showed no effect for the degree of anomaly (major or minor) but did show an effect for both the grade level of subjects and the position of an anomaly within a word. Younger subjects read all seven passages at a lower rate than did older subjects. Passages in which anomalies were placed in the final third of the word took less time to read than passages in which the anomalies were placed in the beginning and middle third of words. The results provide evidence for a model of reading in which a fluent reader attends to the visual stimuli in a serial left-to-right manner until a hypothesis concerning the identification of a word is formed. When the reader is satisfied as to the identity of the word the remainder of the visual stimuli is discarded.

Order No. 77-12,862, 112 pages.

EXPRESSIVE STYLES IN ART AND STRATEGIES IN READING

STRONG, Betty Jay VanSandt, Ed.D.
Memphis State University, 1976

Purpose

The purpose of this study was to identify art expression as visual, indefinite, or haptic, and to identify relationships between these styles and the outcomes of a reading measure entitled the Reading Miscue Inventory (RMI). Questions asked were: Does a change in media affect mean scores on art tests? Does age of subject influence the mean score on art tests? Does IQ affect the mean score on art tests? Does sex influence art expressive style? How do boys and girls, subjects of different grade levels, and Visuals, Indefinites, and Haptics compare in performance on the RMI?

Procedures

Fifty third graders, 50 sixth graders, and 40 ninth graders made two crayon drawings and two tempera paintings after listening to recorded sounds. Resulting pictures were rated using Rouse Rating Scale which was based upon Lowenfeld's expressive style theory. Total scores were placed in a frequency table. Divided into approximate thirds, this table provided three groups which were labeled visual, indefinite, and haptic in expressive style.

All subjects were then administered the RMI. They read passages as their upper instructional level and then retold what they had read. Twenty-five responses or miscues, which did not match the text were analyzed and placed on Coding and Profile Sheets. These sheets provided information on the effectiveness of the use of reading strategies and how miscues related to the text in graphic similarity, sound similarity, grammatical function, grammatical acceptability, semantic acceptability, and meaning change and overcorrection.

Differences in art expressive style and outcomes of the reading test were analyzed according to within grade and between grade performance. The Chi Square Procedure, t-tests, one-way analyses of variance, Student-Newman-Keuls Post Hoc Procedure, and Duncan Multiple Range Test were used.

Findings

1. Age and media apparently influenced art expressive style. 2. IQ and sex difference had no apparent effect on expressive style. 3. Third graders miscues were more graphically similar to the text than were the miscues of sixth and ninth graders. 4. On reading test third graders showed less ability than sixth or ninth graders in the following: (a) effective use of strategies, (b) matching grammatical function of miscue and text, (c) matching grammatical relationships of

miscue and text, (d) choosing miscues which did not impair meaning. 5. Mean scores showed ninth graders to perform better than sixth graders on most facets of the RMI. However, the differences were not statistically significant at the .05 level. 6. On the RMI the Visuals' miscues matched the text in grammatical function more than miscues of the Haptics. (It is important when viewing this information to recall that third graders were predominantly Haptic and ninth graders were largely Visual.) 7. Within grade comparisons of performance of Visuals, Indefinites, and Haptics revealed two significant differences: (a) the sixth grade Haptics were better at providing a miscue with correct grammatical relationships when confronted with an unknown word, (b) the ninth grade Visuals used significantly more overcorrection. Mean scores of Haptics were also higher than those of Indefinites in this regard.

Order No. 77-10,645, 114 pages.

PREORGANIZATION OF READING MATERIALS FOR GOOD AND POOR READERS IN GRADES 1, 3, AND 5

SUNSHINE, Phyllis Mae, Ph.D.
The Pennsylvania State University, 1976

Both previous research and theory have pointed to a possible relationship between comprehension, developmental stages and the ability to organize textual material into meaningful units. To assess the extent of the relationship and its modifiability, the present investigation was designed to examine the following hypotheses. I. The performance (as measured by reading time and free recall) of good comprehenders (grade level word identification and comprehension) and poor comprehenders (grade level word identification and below grade level comprehension) in the learning-to-read stage (first and third graders) would not be facilitated by change in the organization of the typographic presentations when compared to the good mature comprehenders (fifth graders). II. The performance of poor comprehenders in the mature reading stage would be facilitated more by a high degree of meaningful preorganization (i.e., phrase presentation) than any other typographic organization (i.e., single word, sentence, and fragmented phrase presentations) which provides less opportunity for immediate processing of meaningful units. III. The performance of good comprehenders in the mature reading stage would not benefit from the phrase presentation and would be hindered by the word-by-word and fragmented phrase presentations relative to their performance with typical sentence typographic presentation.

First, third, and fifth grade children were administered the Gates Mac Ginitie Reading Test in order to identify poor and good reader. Groups of children selected to represent these categories were presented reading passages in four types of typographical arrangements (i.e., sentence, phrase, fragmented phrase, and single word).

Analyses of the data indicated that different typographical arrangements (i.e., sentence, phrase, fragmented phrase, and word) are differentially utilized by children in different stages of development. Children in the learning-to-read stage (first grade) performed better with the word presentation relative to the sentence presentation. They read at approximately the same rate under each method of presentation. Thus, young readers seem to read word-by-word (regardless of the method of presentation) and the single word presentation appears to parallel their typical style of reading. On the other hand, children entering the mature reading stage differentially employ the conventional (sentence) and nonconventional (phrase, fragmented phrase, and single word) typographical presentations. More specifically, the third and fifth grade children benefit (as measured by the quality score and number of ideas) from the phrase presentation and are hindered by the fragmented phrase and word presentations when compared to their performance in the sentence presentation. Similar results were obtained by the fifth graders with the reading speed variables. The number of words (phrases) read per second by the fifth graders in each presentation were: a) words < phrases and sentence; b) fragmented phrase < sentence; and c) phrase < sentence. It appears that both good and poor comprehenders first entering the mature reading stage do not necessarily or automatically organize their reading input in a way that facilitates good comprehension. However, when the reading materials are preorganized in a meaningful way (phrases) the young mature readers can utilize the organization to their advantage in comprehending the material, more than they can use any of the other methods of presentation.

Order No. 77-9602, 139 pages.

THE EFFECTS OF VARIATION IN WORD FAMILIARITY, STORY CONTENT, AND INSTRUCTIONAL EFFORT ON BOYS' AND GIRLS' COMPREHENSION OF LITERAL AND INFERENTIAL QUESTIONS

TANNER, Linda Rose, Ph.D.
University of Minnesota, 1976

The primary purpose of this study was to investigate the relationship of word frequency to comprehension. There were two secondary purposes: 1) to determine whether or not the relationship between word frequency and comprehension is constant across other potentially important variables such as student sex, vocabulary instruction, story content, and types of comprehension questions, and 2) to investigate the effects of these other variables on comprehension independent of the word frequency issue.

To accomplish these purposes, variation in the familiarity of words in passages and in type of pre-reading vocabulary instruction – in conjunction with variation in story content, student sex, and type of comprehension – was examined in a three between two within analysis of variance design.

One hundred and twenty sixth graders (reading at or above grade level) participated in a comprehension experiment in which the variables of sex, frequency and vocabulary instruction were used to assign students to treatment groups. One third of the students received no vocabulary instruction. Another one third received glossary hand-outs and the remaining one third received direct teacher instruction. Half of the students read low-frequency versions of the two stories. The other half read high-frequency versions of the same two stories. One story was a narrative, biographical story, while the second was a more technical exposition.

All students answered the same set of 15 multiple choice questions after each story. Each set of 15 questions included five script questions (which require underlying knowledge about the topic in question), five literal questions (which test recall of specific facts), and five text inference questions (which require the student to draw relationships between specific facts in the text). The questions were all written in "neutral" language, that is they did not contain any of the high or low-frequency substitutions. Instead, they contained a mid-frequency level synonym.

Students were tested in groups of twenty (ten males and ten females) during thirty minute class periods. The testing took place in the spring of 1976. Data were analyzed using a three-between, two-within analysis of variance.

A follow-up study was conducted in which 14 students (11 females and 3 males) received no vocabulary instruction and read the low frequency versions of the same two stories used in the main study. The only difference was that these subjects were permitted text access while they answered the questions. These scores were compared to the means earned by the earlier comparable treatment group from the main study (female, no vocabulary instruction, and low frequency).

The main effects of word frequency, vocabulary instruction and sex did not produce significant differences. However, both story content and question type yielded significant differences. The narrative biography proved easier than the technical exposition. Script questions were easiest, followed by literal, then text inference questions.

There were four interactions of interest. The sex by content interaction indicated that girls excelled on the narrative, while boys excelled on the technical exposition. The content x question type interaction indicated that literal questions were easier than script on the narrative biography while they were harder than script on the technical exposition.

The content x vocabulary interaction seemed to be due to the detrimental effect of the glossary treatment for the narrative biography. The content x vocabulary x question type interaction was likely due to the particularly helpful influence of teacher instruction on script and inference questions, especially in the technical exposition.

The follow-up study indicated that providing text access while the students answered the questions significantly improved scores on the more difficult technical narrative. In addition, text inference scores on both stories significantly improved with text access. Order No. 77-12,864, 119 pages.

THE INFLUENCE OF READING ABILITY AND SPECIFICITY OF OBJECTIVES ON INTENTIONAL AND INCIDENTAL LEARNING FROM ESSAYS IN COLLEGE ENGLISH

THOMPSON, Dennis Reid, Ph.D.
Michigan State University, 1976

Purpose of the Study

A decline in the language ability of high school graduates and the democratization of higher education have created large numbers of college students unable to read college level texts. This study looked at one effort to help such students understand difficult prose material. Its purpose was to investigate the effects of reading ability and specificity of objectives on intentional and incidental learning from two essays in college English classes.

Procedures

Nine freshman English classes consisting of 226 students at Macomb County Community College (Michigan) were blocked by a standardized reading test into high, medium, and low reading groups. Each of these groups was divided into four treatment groups based on the specificity of verbs and objects in the objectives they received prior to reading an essay. The four groups were as follows: (1) vague verbs – vague objects, (2) vague verbs – specific objects, (3) specific verbs – vague objects, and (4) specific verbs – specific objects.

After reading the first essay, which dealt with women's liberation, students were given a multiple choice, true-false test which included both intentional and incidental items. One week later a retention test was given and the study was replicated with the second essay, a selection from Walden.

Major Findings of the Study

A multivariate analysis of variance showed the following results: 1. Reading ability had a significantly positive effect ($p < .05$) on intentional and incidental learning from both essays. 2. Specificity of verbs had no effect on either type of learning from either essay. 3. Specificity of objects had a strong, positive effect ($p < .005$) on immediate, intentional learning and a lesser but still positive effect on retention of intentional learning ($p < .071$). However, these effects just pertained to the second essay. 4. Immediate incidental learning was unaffected by specificity of verbs or specificity of objects. 5. There was a significant interaction between reading ability and specificity of objects for incidental learning on a repeated measures analysis of the second essay. Students with low reading ability who received specific objects were aided on the retention test, whereas students with medium and high reading ability were slightly hindered by specific objects.

Order No. 77-11,722, 122 pages.

FIELD ARTICULATION AND CRITICAL READING AND LISTENING

UYIDI, Guillaume T., Ph.D.
University of Toronto (Canada), 1974

The purpose of the present study was to test the critical reading abilities of elementary school children and determine the extent that these abilities were a function of cognitive style and two modes of presentation, reading versus reading and listening.

The specific questions relevant to the study were as follows: 1. In what manner is an individual's cognitive style, as identified by the Children's Embedded Figure Test (CEFT), related to performance on a critical reading test? 2. What is the comparative effect of different modes of presenting the selections on comprehension? a) audio-visual (reading and listening) b) visual (reading). 3. In what manner is an individual's performance on critical reading test related to: a) verbal intelligence b) nonverbal intelligence c) total intelligence.

Subjects of the present study comprised 52 boys from the third grade classes of one suburban Southern California elementary school. Based upon their performance on the independent measure (CEFT), two major groups were chosen consisting of subjects who scored within the upper and lower 50 percent of the independent measure. In each group, the former group was considered field-independent, and the latter considered field-dependent. For the purpose of additional analyses (to determine the comparative effect of two modes of presenting the selections on comprehension), subjects from the two major groups were randomly assigned to constitute four subgroups: (1-2) audio-visual, field-independent-dependent subjects; and (3-4) visual, field-independent-dependent subjects.

Data on general intelligence were obtained from the California Short Form Test of Mental Maturity, S Form, Level I.

Data on critical reading abilities were obtained from the Ohio State University Critical Reading Test, Primary Level.

Analysis of covariance was performed (with IQ as a covariate) to determine the effect of cognitive style and the two modes of presentation. Pearson's product-moment correlations were obtained to determine the intercorrelations among the variables: field-independence-dependence, intelligence, and critical reading. Partial and multiple correlations were obtained to determine the effect of two predictors (cognitive style and intelligence) on critical reading performance. Mean errors were obtained to determine the patterns of performance in the various comprehension skills as a function of cognitive style and the two modes of presentations.

The results obtained revealed that: 1. Field-independent subjects performed better than field-dependent subjects. 2. The difference in performance between field-independent and field-

dependent subjects was evident and significant ($p < .001$) in situations requiring the disembedding and organization of relevant information from the reading passage (e.g., identifying and evaluating main ideas, unstated premises and conclusions, material fallacies in logic, and comparing information from multiple sources). 3. Subjects in the audio-visual group performed better than their counterpart in the visual group. However, there was no significant interaction between cognitive style and mode of presentation. 4. Cognitive style was positively and significantly related to critical reading and accounted for 23.91 percent of the variance. 5. Verbal intelligence was positively and significantly related to critical reading and accounted for 12.67 percent of the variance. 6. Nonverbal intelligence was positively and significantly related to critical reading and accounted for 15.29 percent of the variance. 7. Total intelligence was positively and significantly related to critical reading and accounted for 20.52 percent of the variance. 8. Cognitive style together with total intelligence were significantly related to critical reading and accounted for 44.43 percent of the variance.

It was concluded from the results of the present study that there are characteristics of individuals such as cognitive style, in addition to ability, which may affect learning in the classroom. The findings of the present study supports Witkin et al.'s (1962) theoretical formulations in regard to development toward greater differentiation in early childhood. Implications for education were also noted.

THE RETENTION OF DETAIL BY YOUNG CHILDREN WITH THREE MODES OF STORY PRESENTATION

WITZMAN, Audrey Lorraine, Ph.D.
Northwestern University, 1976

The purpose of this study was to determine if the mode of story presentation was related to the retention of detail in young children. 113 White, middle-class nursery school students, three through five-years-old participated in the collection and analysis of data. The students were divided into high and low maturity level groups using the scores on the Quality Scales of the Goodenough-Harris Drawing Test. These maturity levels were then divided into one of three different modes for story presentation. Group I (high and low maturity level students) heard the story in the Traditional story-telling manner. They were then tested for detail retention. Group II heard it through Ear Phones while the Teacher held the Book, and Group III also wore Ear Phones and had their own books. They turned the pages when told to do so during the story. Both these groups were also tested for detail retention. The hypotheses stated no differences were expected in retention ability for the two levels of maturity as they listened to a story through the three different modes of presentation.

The results of a 2 x 3 analysis of variance indicated the treatment was significant at the .05 level; the highest performance was obtained by the teacher-child Traditional storytime. The differences among the maturity levels, as might be expected, were significant at the .01 level.

Scheffé's analysis of multiple comparisons indicated significant differences ($P < .05$) between the Traditional Group and the Ear Phones with Books Group, and the Traditional Group with the Ear Phones with Teacher Group at the .01 level.

It would appear that young children remember details of a story best when they hear the story read in the traditional story-telling setting; young children are able to follow directions to turn pages and still retain story details; and young children retain details least well when the teacher holds a book, turns the pages, and the child listens to a story through a pair of ear phones.

The study is important as a demonstration that the teacher is still the best medium for conveying information. It also provides information on the assumption that young children can benefit from audio-visual materials, such as a cassette recorder and an accompanying book, and remember details in a story while listening for verbal directions.

Order No. 77-10,103, 113 pages.

Copies of the dissertations may be obtained by addressing your request to:

University Microfilms International
300 North Zeeb Road
Ann Arbor, Michigan 48106

or by telephoning (toll-free) 1-800-521-3042